

PRACTICE Gateway Quiz #2 - Solving Equations **Show Work!**

1) $5x - 3 = 9$
 $+3 +3$

$$\frac{5x}{5} = \frac{12}{5}$$

$$x = \frac{12}{5} = 2.4$$

4) $\frac{3}{4}x = 12 \cdot \frac{4}{3}$

$$x = 16$$

2) $6x - 4 = 2x + 1$
 $-2x -2x$

$$4x - 4 = 1$$

$$\frac{4x}{4} = \frac{5}{4}$$

$$x = \frac{5}{4} = 1.25$$

5) $3x - 5x + 7x = 30$

$$\frac{5x}{5} = \frac{30}{5}$$

$$x = 6$$

3) $\frac{x+1}{7} = -3 \cdot 7$

$$\frac{x+1}{-1} = \frac{-21}{-1}$$

$$x = -22$$

6) $2(x+4) - 6 = 14$
 $+6 +6$

$$\frac{2(x+4)}{2} = \frac{20}{2}$$

$$x+4 = 10$$

$$x = 6$$

7) $x^3 - 1 = 26$
 $+1 +1$

$$x^3 = 27$$

$$x = 3$$

8) $(\sqrt[4]{x-2})^4 = (3)^4$

$$x-2 = 81$$

$$x = 83$$

9) $F = ma$ for a

$$a = \frac{F}{m}$$

10) $R = \frac{CS}{D}$ for D

$$\frac{D \cdot R}{R} = \frac{CS}{R}$$

$$D = \frac{CS}{R}$$

11) $P = 2(l+w)$ for w

$$\frac{P}{2} = L + W$$

$$W = \frac{P}{2} - L$$

or $\frac{P-2L}{2} = W$

12) $h = vt - 16t^2$ for v
 $+16t^2 +16t^2$

$$\frac{h+16t^2}{t} = \frac{vt}{t}$$

$$v = \frac{h+16t^2}{t}$$